

# Next-Generation Video in Transportation Applications

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# Why Video?

- ≡ We're visual creatures
- ≡ Video adds context and texture to other sensor data
- ≡ Governments, private sector and individuals are focused on and demanding better security arrangements
- ≡ Technological progress enables cost effective implementation



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# Challenges

- ≡ Technological – adding large numbers of conventional cameras to provide greater situational awareness increases complexity
- ≡ Economic – greater complexity means greater cost
- ≡ Social- Privacy vs. security

# Wide Area Surveillance Technology

- ≡ Beyond the limitations of conventional video
- ≡ Convergence of optics, image processing and digital sensors
- ≡ Better situational awareness
- ≡ Better decision making
- ≡ Less complexity



# Wide Area Technology Applications

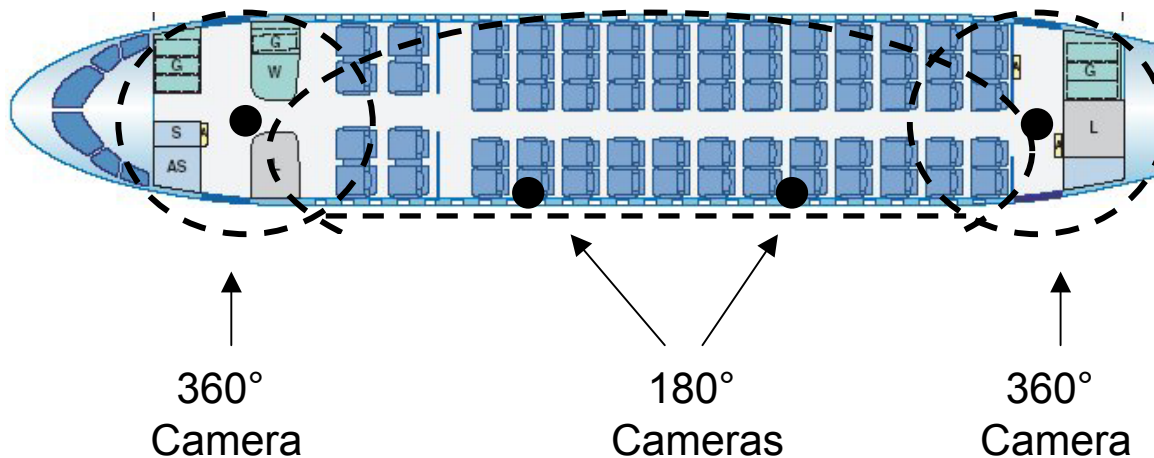
- Improved situational awareness
  - Pilot / cockpit activity
  - Passenger cabin activity
  - Cargo areas
  - External views from vehicles



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# Passenger Cabin Monitoring

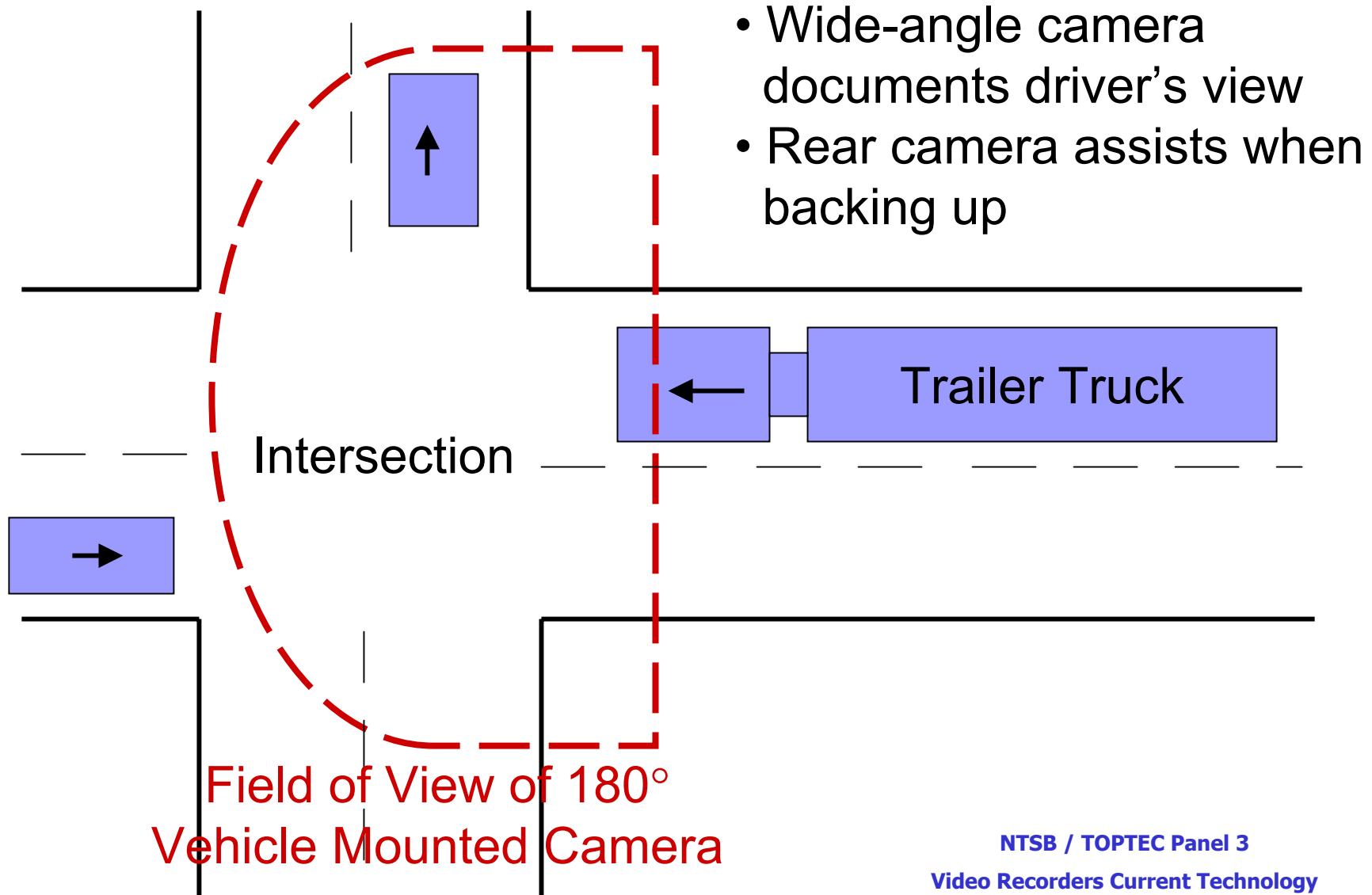
- /// Fewer cameras required
- /// Less complexity
- /// No moving parts
- /// No visible cameras
- /// Multi-modal



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Video Recorders Current Technology

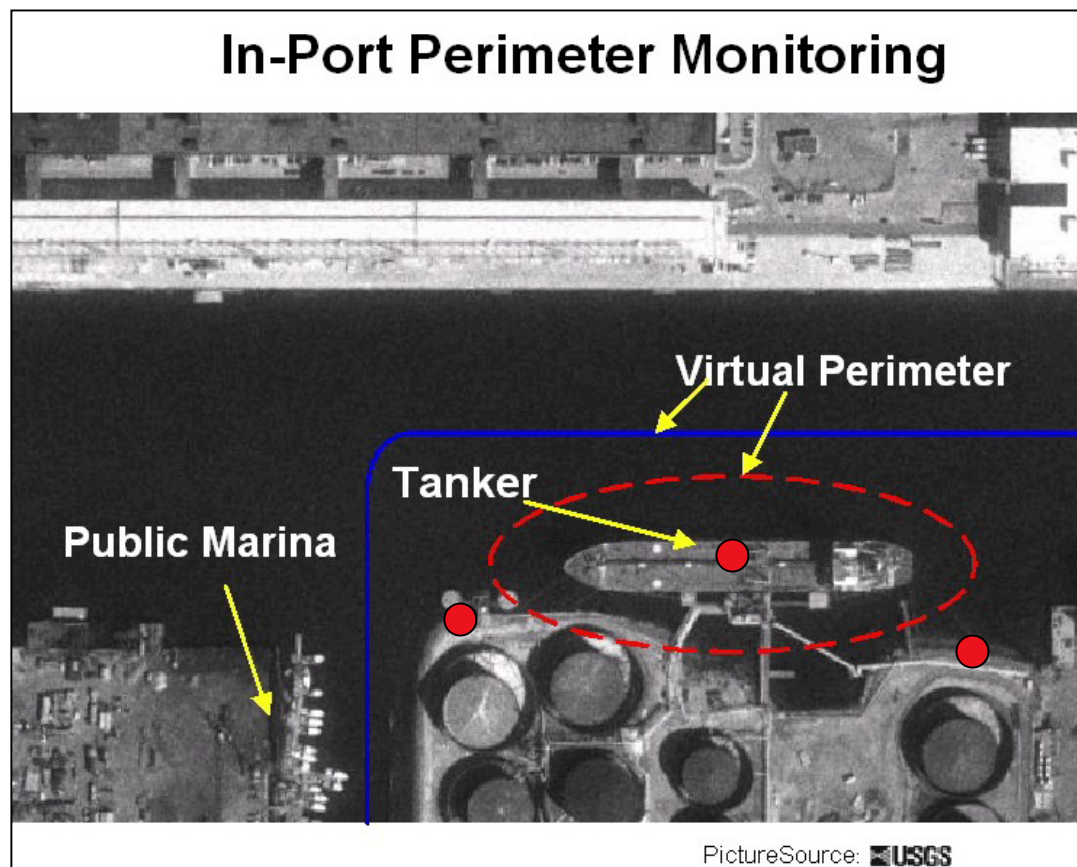
# Vehicle Cameras





# In-Port Maritime Security

- 360-degree cameras for improved situational awareness



● 360° Camera Systems



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Video Recorders Current Technology



# Integration Considerations

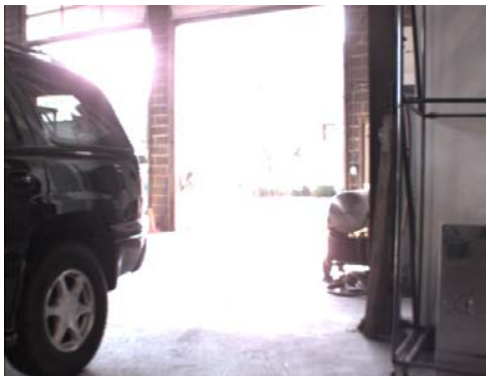
- Field of View
- Resolution
- File size
- Placement
- Visibility
- Sensor Technology



# New Sensor Technologies

- Total scene visibility for settings with difficult, varied lighting

CCD Camera



The Same Scene With Autobrite



# Wide Area Surveillance Technology

- Information-rich addition to data recording
- Improved awareness, decision making and forensic analysis
- Broad array of transportation applications